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routing table<and>destination address Search

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1 **Multi-zone caches for accelerating IP routing table lookups**
Chvets, I.L.; MacGregor, M.H.;
High Performance Switching and Routing, 2002. Merging Optical and IP Technologies. Workshop on , 26-29 May 2002
Pages:121 - 126

[Abstract] [PDF Full-Text (685 KB)] **IEEE CNF**

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2 **Novel hardware architecture for fast address lookups**
Mehrotra, P.; Franzon, P.D.;
High Performance Switching and Routing, 2002. Merging Optical and IP Technologies. Workshop on , 26-29 May 2002
Pages:105 - 110

[Abstract] [PDF Full-Text (590 KB)] **IEEE CNF**

---

3 **Synthetic trace generation for the Internet**
Shi, W.; MacGregor, M.H.; Gburzynski, P.;
Workload Characterization, 2001. WWC-4. 2001 IEEE International Workshop on , 2 Dec. 2001
Pages:169 - 174

[Abstract] [PDF Full-Text (531 KB)] **IEEE CNF**

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4 **IP route lookups as string matching**
Donnelly, A.; Deegan, T.;
Local Computer Networks, 2000. LCN 2000. Proceedings. 25th Annual IEEE Conference on , 8-10 Nov. 2000
Pages:589 - 595

[Abstract] [PDF Full-Text (496 KB)] IEEE CNF

5 **Optically assisted Internet routing using arrays of novel dynamicall reconfigurable FBG-based correlators**
Hauer, M.C.; McGeehan, J.E.; Kumar, S.; Touch, J.D.; Bannister, J.; Lyons, E Lin, C.H.; Au, A.A.; Lee, H.P.; Starodubov, D.S.; Willner, A.E.;
Lightwave Technology, Journal of , Volume: 21 , Issue: 11 , Nov. 2003
Pages:2765 - 2778

[Abstract] [PDF Full-Text (829 KB)] IEEE JNL

6 **Novel hardware architecture for fast address lookups**
Mehrotra, P.; Franzon, P.D.;
Communications Magazine, IEEE , Volume: 40 , Issue: 11 , Nov. 2002
Pages:66 - 71

[Abstract] [PDF Full-Text (454 KB)] IEEE JNL

7 **At the core of IP networks: link-state routing protocols**
Metz, C.;
Internet Computing, IEEE , Volume: 3 , Issue: 5 , Sept.-Oct. 1999
Pages:72 - 77

[Abstract] [PDF Full-Text (128 KB)] IEEE JNL

8 **All-optical packet-header-recognition techniques**
Willner, A.E.;
Lasers and Electro-Optics Society, 2002. LEOS 2002. The 15th Annual Meetin the IEEE , Volume: 1 , 10-14 Nov. 2002
Pages:47 - 48 vol.1

[Abstract] [PDF Full-Text (262 KB)] IEEE CNF

9 **A scalable and small forwarding table for fast IP address lookups**
Sungkee, J.; Sang-Hun Chung; Jung-Wan Cho; Hyunsoo Yoon;
Computer Networks and Mobile Computing, 2001. Proceedings. 2001 Internat Conference on , 16-19 Oct. 2001
Pages:413 - 418

[Abstract] [PDF Full-Text (631 KB)] IEEE CNF

10 **Near optimal flow labeling in ATM/IP-LSR networks using multi-segment flows**
Harwood, A.; Shen, H.;
Networks, 2000. (ICON 2000). Proceedings. IEEE International Conference or Sept. 2000
Pages:243 - 247

[Abstract] [PDF Full-Text (364 KB)] IEEE CNF

11 **IP/ATM solution for accelerating Internet services**
El Adnani, A.; Clausen, H.D.; Ouahman, A.A.;
Parallel Computing in Electrical Engineering, 2000. PARELEC 2000. Proceedin

International Conference on , 27-30 Aug. 2000
Pages:253 - 256

[Abstract] [PDF Full-Text (360 KB)] **IEEE CNF**

---

12 **Hash parallel and label parallel routing for high performance multi router with fine grain QoS control**

Ohta, M.; Sola, M.; Fujikawa, K.; Kojima, A.; Fukumori, H.; Muraoka, Y.;

Internet Workshop, 1999. IWS 99 , 18-20 Feb. 1999
Pages:13 - 16

[Abstract] [PDF Full-Text (288 KB)] **IEEE CNF**

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Found **112** of **127,132 searched.**

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101 SoftFLASH: analyzing the performance of clustered distributed virtual shared memory 77%
Andrew Erlichson , Neal Nuckolls , Greg Chesson , John Hennessy
Proceedings of the seventh international conference on Architectural support for programming languages and operating systems September 1996
Volume 31 , 30 Issue 9 , 5
One potentially attractive way to build large-scale shared-memory machines is to use small-scale to medium-scale shared-memory machines as clusters that are interconnected with an off-the-shelf network. To create a shared-memory programming environment across the clusters, it is possible to use a virtual shared-memory software layer. Because of the low latency and high bandwidth of the interconnect available within each cluster, there are clear advantages in making the clusters as large as possi ...

102 A scalable wireless virtual LAN 77%
Zhao Liu , Malathi Veeraraghavan , Kai Y. Eng
Proceedings of the 2nd annual international conference on Mobile computing and networking November 1996

103 Portable run-time support for dynamic object-oriented parallel processing 77%
Andrew S. Grimshaw , Jon B. Weissman , W. Timothy Strayer
ACM Transactions on Computer Systems (TOCS) May 1996
Volume 14 Issue 2
Mentat is an object-oriented parallel processing system designed to simplify the task of writing portable parallel programs for parallel machines and workstation networks. The Mentat compiler and run-time system work together to automatically

manage the communication and synchronization between objects. The run-time system marshals member function arguments, schedules objects on processors, and dynamically constructs and executes large-grain data dependence graphs. In this article we presen ...

104 Trading packet headers for packet processing 77%

Girish P. Chandranmenon , George Varghese
IEEE/ACM Transactions on Networking (TON) April 1996
Volume 4 Issue 2

105 Loss profiles: a quality of service measure in mobile computing 77%

Krishanu Seal , Suresh Singh
Wireless Networks March 1996
Volume 2 Issue 1
With rapid technological advances being made in the area of wireless communications it is expected that, in the near future, mobile users will be able to access a wide variety of services that will be made available over future high-speed networks. The quality of these services in the high-speed network domain can be specified in terms of several QOS parameters. In this paper we identify a new QOS parameter for the mobile environment, called loss profiles, that ensures graceful degradation ...

106 Optimal strategies for admitting voice and data traffic in networks of LEO satellites using CDMA 77%

Evaggelos Geraniotis , Yu-Wen Chang , Wen-Bin Yang
Wireless Networks December 1996
Volume 2 Issue 4
Efficient policies are derived for admitting voice and data traffic into networks of low-earth-orbit (LEO) satellites using code-division multiple-access (CDMA) with direct-sequence spread-spectrum (DS/SS) signaling. The satellites act as bent-pipes; no on-board processing or intersatellite links are present. Dual satellite diversity is used to mitigate the effects of shadowing. The policies assume a movable boundary form, allocate optimally the CDMA capacity (PN codes) to voice and data us ...

107 Packet network simulation: speedup and accuracy versus timing granularity 77%

Jong Suk Ahn , Peter B. Danzig
IEEE/ACM Transactions on Networking (TON) October 1996
Volume 4 Issue 5

108 Manufacturing resource planning on a PC local area network 77%

H. Clark Kee , Roy L. Post
ACM SIGAPL APL Quote Quad , Proceedings of the international conference on APL May 1986
Volume 16 Issue 4
This paper details a large APL programming project of 12 man years. An integrated software system structured on the principles of MRP (manufacturing resource planning) was implemented by a Bristol-Myers in house team for use in a new manufacturing facility. The system applies off-the-shelf technology in innovative ways, using STSC APL*PLUS/PC as the only programming language, to build a very sophisticated application on IBM/PCs fully sharing data in a secure environment via

the N ...

109 VAXcluster: a closely-coupled distributed system 77%

Nancy P. Kronenberg , Henry M. Levy , William D. Strecker
ACM Transactions on Computer Systems (TOCS) May 1986
Volume 4 Issue 2

A VAXcluster is a highly available and extensible configuration of VAX computers that operate as a single system. To achieve performance in a multicomputer environment, a new communications architecture, communications hardware, and distributed software were jointly designed. The software is a distributed version of the VAX/VMS operating system that uses a distributed lock manager to synchronize access to shared resources. The communications hardware includes a 70 megabit per second message ...

110 A faster UDP 77%

Craig Partridge , Stephen Pink
IEEE/ACM Transactions on Networking (TON) August 1993
Volume 1 Issue 4

111 Parallel logic simulation of VLSI systems 77%

Mary L. Bailey , Jack V. Briner , Roger D. Chamberlain
ACM Computing Surveys (CSUR) September 1994
Volume 26 Issue 3

Fast, efficient logic simulators are an essential tool in modern VLSI system design. Logic simulation is used extensively for design verification prior to fabrication, and as VLSI systems grow in size, the execution time required by simulation is becoming more and more significant. Faster logic simulators will have an appreciable economic impact, speeding time to market while ensuring more thorough system design testing. One approach to this problem is to utilize parallel processing, taking ...

112 Query evaluation techniques for large databases 77%

Goetz Graefe
ACM Computing Surveys (CSUR) June 1993
Volume 25 Issue 2

Database management systems will continue to manage large data volumes. Thus, efficient algorithms for accessing and manipulating large sets and sequences will be required to provide acceptable performance. The advent of object-oriented and extensible database systems will not solve this problem. On the contrary, modern data models exacerbate the problem: In order to manipulate large sets of complex objects as efficiently as today's database systems manipulate simple records, query-processi ...

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81 Network support for mobile multimedia using a self-adaptive distributed proxy 77%
Zhuoqing Morley Mao , Hoi-sheung Wilson So , Byunghoon Kang
Proceedings of the 11th international workshop on Network and operating systems support for digital audio and video January 2001
Recent advancements in video and audio codec technologies~(e.g., RealV ideo [18] make multimedia streaming possible across a wide range of network conditions. With an increasing trend of ubiquitous connectivity, more and more areas have overlapping coverage of multiple wired and wireless networks. Because the best network service changes as the user moves, to provide good multimedia application performance, the service needs to adapt to user movement as well as network and computational res ...

82 Network support for IP traceback 77%
Stefan Savage , David Wetherall , Anna Karlin , Tom Anderson
IEEE/ACM Transactions on Networking (TON) June 2001
Volume 9 Issue 3
This paper describes a technique for tracing anonymous packet flooding attacks in the Internet back toward their source. This work is motivated by the increased frequency and sophistication of denial-of-service attacks and by the difficulty in tracing packets with incorrect, or "spoofed," source addresses. In this paper, we describe a general purpose traceback mechanism based on probabilistic packet marking in the network. Our approach allows a victim to identify the network pat ...

83 Mobile connectivity protocols and throughput measurements in the Ricochet Microcellular data network (MCDN) system 77%
Mike Ritter , Robert J. Friday , Rodrigo Garces , Weill San Filippo , Cuong-Thinh Nguyen

Proceedings of the 7th annual international conference on Mobile computing and networking July 2001

We describe the protocols implemented in the Ricochet MCDN system to provide continuous connectivity to mobile users traveling up to 70 mph. These protocols are general in nature for any frequency-hopping microcell-based system, particularly those that follow the FCC part 15.247 rules [9] and operate in unlicensed spectrum. We also present throughput measurements as a function of velocity and describe a model to predict those numbers based upon the protocols implemented. The MCDN system is a ...

84 Research challenges in wireless networks of biomedical sensors 77%

Loren Schwiebert , Sandeep K.S. Gupta , Jennifer Weinmann
Proceedings of the 7th annual international conference on Mobile computing and networking July 2001

Implanted biomedical devices have the potential to revolutionize medicine. *Smart sensors*, which are created by combining sensing materials with integrated circuitry, are being considered for several biomedical applications such as a glucose level monitor or a retina prosthesis. These devices require the capability to communicate with an external computer system (base station) via a wireless interface. The limited power and computational capabilities of smart sensor based biological imp ...

85 Parallel shared-memory simulator performance for large ATM networks 77%

Brian Unger , Zhonge Xiao , John Cleary , Jya-Jang Tsai , Carey Williamson
ACM Transactions on Modeling and Computer Simulation (TOMACS) October 2000
Volume 10 Issue 4

A performance comparison between an optimistic and a conservative parallel simulation kernel is presented. Performance of the parallel kernels is also compared to a central-event-list sequential kernel. A spectrum of ATM network and traffic scenarios representative of those used by ATM networking researchers are used for the comparison. Experiments are conducted with a cell-level ATM network simulator and an 18-processor SGI PowerChallenge shared-memory multiprocessor. The resul ...

86 Manageability, availability, and performance in porcupine: a highly scalable, cluster-based mail service 77%

Yasushi Saito , Brian N. Bershad , Henry M. Levy
ACM Transactions on Computer Systems (TOCS) August 2000
Volume 18 Issue 3

This paper describes the motivation, design and performance of Porcupine, a scalable mail server. The goal of Porcupine is to provide a highly available and scalable electronic mail service using a large cluster of commodity PCs. We designed Porcupine to be easy to manage by emphasizing dynamic load balancing, automatic configuration, and graceful degradation in the presence of failures. Key to the system's manageability, availability, and performance is that sessions, data, and underlying ...

87 Applying parallel discrete event simulation to network emulation 77%

Rob Simmonds , Russell Bradford , Brian Unger
Proceedings of the fourteenth workshop on Parallel and distributed simulation May 2000

The simulation of wide area computer networks is one area where the benefits of parallel simulation have been clearly demonstrated. Here we present a description of a system that uses a parallel discrete event simulator to act as a high speed network emulator. With this, real Internet Protocol (IP) traffic generated by application programs running on user workstations can interact with modelled traffic in the emulator, thus providing a controlled test environment for distributed app ...

88 Smart Memories: a modular reconfigurable architecture 77%
Ken Mai , Tim Paaske , Nuwan Jayasena , Ron Ho , William J. Dally , Mark Horowitz
ACM SIGARCH Computer Architecture News , Proceedings of the 27th annual international symposium on Computer architecture May 2000
Volume 28 Issue 2

Trends in VLSI technology scaling demand that future computing devices be narrowly focused to achieve high performance and high efficiency, yet also target the high volumes and low costs of widely applicable general purpose designs. To address these conflicting requirements, we propose a modular reconfigurable architecture called Smart Memories, targeted at computing needs in the 0.1&mgr; technology generation. A Smart Memories chip is made up of many processing tiles, each containing local ...

89 Simulation of the LAN behavior in the distributed HP-UXenvironment 77%
Joseph J. Devai , Thomas C. Kerrigan , Michael K. Molloy
Proceedings of the 22nd conference on Winter simulation December 1990

90 FlexiNet---a flexible component oriented middleware system 77%
Richard Hayton , Andrew Herbert , Douglas Donaldson
Proceedings of the 8th ACM SIGOPS European workshop on Support for composing distributed applications September 1998

91 Replication and fault-tolerance in the ISIS system 77%
Kenneth P. Birman
ACM SIGOPS Operating Systems Review , Proceedings of the tenth ACM symposium on Operating systems principles December 1985
Volume 19 Issue 5

92 Analysis of TCP performance over mobile ad hoc networks 77%
Gavin Holland , Nitin Vaidya
Proceedings of the 5th annual ACM/IEEE international conference on Mobile computing and networking August 1999

93 Performance prediction of a parallel simulator 77%
Jason Liu , David Nicol , Brian J. Premore , Anna L. Poplawski
Proceedings of the thirteenth workshop on Parallel and distributed simulation May 1999

There are at least three major obstacles thwarting wide-spread adoption of parallel discrete-event simulation (a) lack of need, (b) lack of tools, (c) lack of predictability in behavior and performance. The plain truth is that most simulation studies can be adequately done on ordinary serial computers. Parallel simulation tools are products of re-search efforts, and simply don't stand up to the demands of modern software engineering. The results of 20 years of research in parallel simulation rev ...

94 Texture shaders 77%
Michael D. McCool , Wolfgang Heidrich
Proceedings of the ACM SIGGRAPH/EUROGRAPHICS workshop on Graphics hardware July 1999

95 A scalable wireless virtual LAN 77%
Zhao Liu , Malathi Veeraraghavan , Kai Y. Eng
Mobile Networks and Applications September 1998
Volume 3 Issue 3
This paper presents a Wireless Virtual Local Area Network (WVLAN) to support mobility in IP-over-ATM local area networks. Mobility is handled by a joint ATM-layer handoff for connection rerouting and MAC-layer handoff for location tracking, such that the effects of mobility are localized and transparent to the higher-layer protocols. Different functions, such as Address Resolution Protocol (ARP), mobile location, and ATM connection admission are combined to reduce protocol overhead and fron ...

96 Internet routing instability 77%
Craig Labovitz , G. Robert Malan , Farnam Jahanian
IEEE/ACM Transactions on Networking (TON) October 1998
Volume 6 Issue 5

97 A 50-Gb/s IP router 77%
Craig Partridge , Philip P. Carvey , Ed Burgess , Isidro Castineyra , Tom Clarke , Lise Graham , Michael Hathaway , Phil Herman , Allen King , Steve Kohalmi , Tracy Ma , John Mcallen , Trevor Mendez , Walter C. Milliken , Ronald Pettyjohn , John Rokosz , Joshua Seeger , Michael Sollins , Steve Storch , Benjamin Tober , Gregory D. Troxel
IEEE/ACM Transactions on Networking (TON) June 1998
Volume 6 Issue 3

98 Connection architecture and protocols to support efficient handoffs over an ATM/B-ISDN personal communications network 77%
Oliver T. W. Yu , Victor C. M. Leung
Mobile Networks and Applications October 1996
Volume 1 Issue 2
The next generation personal communication network will likely internetwork wireless networks via the ATM/B-ISDN to enable ubiquitous broadband personal communication services. Support of user terminal mobility, particularly the capability for fast and seamless handoffs, over the ATM/B-ISDN is an expected requirement that is not currently met. We propose extensions to the ATM/B-ISDN user transport and signaling network architectures and signaling protocols to meet these requirements. The ne ...

99 Internet routing instability 77%
Craig Labovitz , G. Robert Malan , Farnam Jahanian
ACM SIGCOMM Computer Communication Review , Proceedings of the ACM SIGCOMM '97 conference on Applications, technologies, architectures, and protocols for computer communication October 1997
Volume 27 Issue 4
This paper examines the network inter-domain routing information exchanged between backbone service providers at the major U.S. public Internet exchange points. Internet routing instability, or the rapid fluctuation of network reachability

information, is an important problem currently facing the Internet engineering community. High levels of network instability can lead to packet loss, increased network latency and time to convergence. At the extreme, high levels of routing instability have lea ...

100 Analyzing stability in wide-area network performance 77%

Hari Balakrishnan , Mark Stemm , Srinivasan Seshan , Randy H. Katz

ACM SIGMETRICS Performance Evaluation Review , Proceedings of the 1997 ACM SIGMETRICS international conference on Measurement and modeling of computer systems June 1997

Volume 25 Issue 1

The Internet is a very large scale, complex, dynamical system that is hard to model and analyze. In this paper, we develop and analyze statistical models for the observed end-to-end network performance based on extensive packet-level traces (consisting of approximately 1.5 billion packets) collected from the primary Web site for the Atlanta Summer Olympic Games in 1996. We find that observed mean throughputs for these transfers measured over 60 million complete connections vary widely as a funct ...

Results 81 - 100 of 112 short listing

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61 Integrated personal mobility architecture: a complete personal mobility solution 77%

Binh Thai , Rachel Wan , Aruna Seneviratne , Thierry Rakotoarivelo
Mobile Networks and Applications February 2003
Volume 8 Issue 1

The high expectations and demand for users to access the Internet from anywhere at anytime has made user mobility an important part of the design and development of the next generation mobile communications and computing. Traditionally user mobility has been divided into two areas: Terminal Mobility and Personal Mobility. In recent years terminal mobility has focused on the movement of the terminal and developed extensions to IP protocols such as Mobile IP. In contrast, personal mobility has onl ...

62 Controlling high bandwidth aggregates in the network 77%

Ratul Mahajan , Steven M. Bellovin , Sally Floyd , John Ioannidis , Vern Paxson , Scott Shenker
ACM SIGCOMM Computer Communication Review July 2002
Volume 32 Issue 3

The current Internet infrastructure has very few built-in protection mechanisms, and is therefore vulnerable to attacks and failures. In particular, recent events have illustrated the Internet's vulnerability to both denial of service (DoS) attacks and flash crowds in which one or more links in the network (or servers at the edge of the network) become severely congested. In both DoS attacks and flash crowds the congestion is due neither to a single flow, nor to a general increase in traffic, bu ...

63 Applications and OS: GHT: a geographic hash table for data-centric storage 77%

Sylvia Ratnasamy , Brad Karp , Li Yin , Fang Yu , Deborah Estrin , Ramesh Govindan , Scott Shenker
Proceedings of the 1st ACM international workshop on Wireless sensor networks and applications September 2002

Making effective use of the vast amounts of data gathered by large-scale sensor networks will require scalable, self-organizing, and energy-efficient data dissemination algorithms. Previous work has identified data-centric routing as one such method. In an asso-ciated position paper [23], we argue that a companion method, data-centric storage (DCS), is also a useful approach. Under DCS, sensed data are stored at a node determined by the name associated with the sensed data. In this paper, we des ...

64 An architecture for network-layer routing in OSI 77%

P. F. Tsuchiya
ACM SIGCOMM Computer Communication Review , Proceedings of the ACM workshop on Frontiers in computer communications technology August 1987
Volume 17 Issue 5

Work on the standardization of routing protocols for OSI is in progress. The envisioned set of routing protocols is expected to work in nearly all of the environments which constitute OSI networks. Behind these routing protocols is an architecture which outlines problems and goals, establishes a framework upon which to base the development of protocols, and provides a conceptual baseline for continued work on unsolved problems. This architecture defines routing in the OSI network layer, fun ...

65 A case for mobility support with temporary home agents 77%

Rong Zheng , Ye Ge , Jennifer C. Hou , Sandy R. Thuel
ACM SIGMOBILE Mobile Computing and Communications Review January 2002
Volume 6 Issue 1

The Mobile IP standard for mobility management on the Internet enables transparent communication between mobile hosts (MHs) and their correspondent hosts (CHs). However, it suffers from triangular routing and prolonged handoff latency problems. Solutions such as route optimization and micro-mobility protocols either solve these problems partially or require costly modifications to the CHs. In this paper, we propose to use *temporary home agent* (TA) to address both problems without requirin ...

66 Critical issues in mapping neural networks on message-passing multicomputers 77%

J. Ghosh , K. Hwang
ACM SIGARCH Computer Architecture News , Proceedings of the 15th Annual International Symposium on Computer architecture May 1988
Volume 16 Issue 2

Connectionist models such as artificial neural systems, offer an intrinsically concurrent computational paradigm. We investigate the architectural requirements for efficiently simulating large neural networks on a multicomputer system with thousands of fine-grained processors and distributed memory. First, models for characterizing the structure of a neural network and the function of individual cells are developed. These models provide guidelines for efficiently mapping the network onto mu ...

67 Multi-protocol active messages on a cluster of SMP's 77%

Steven S. Lumetta , Alan M. Mainwaring , David E. Culler

Proceedings of the 1997 ACM/IEEE conference on Supercomputing (CDROM)
November 1997

Clusters of multiprocessors, or Clumps, promise to be the supercomputers of the future, but obtaining high performance on these architectures requires an understanding of interactions between the multiple levels of interconnection. In this paper, we present the first multi-protocol implementation of a lightweight message layer---a version of Active Messages-II running on a cluster of Sun Enterprise 5000 servers connected with Myrinet. This research brings together several pieces of high-performa ...

68 StarT-Voyager: a flexible platform for exploring scalable SMP issues 77%

Boon S. Ang , Derek Chiou , Daniel L. Rosenband , Mike Ehrlich , Larry Rudolph , Arvind
Proceedings of the 1998 ACM/IEEE conference on Supercomputing (CDROM)
November 1998

This paper describes StarT-Voyager, a machine designed as an experimental platform for research in cluster system communication. The heart of StarT-Voyager is a network interface unit (NIU) that connects the memory bus of a PowerPC-based SMP to the MIT Arctic network. The NIU is highly flexible, with its set of functions easily modified by firmware or by programmable hardware, making it possible to compare different communication interfaces and implementation strategies on a common platform. Its ...

69 Video Streaming 2: Distributing streaming media content using cooperative networking 77%

Venkata N. Padmanabhan , Helen J. Wang , Philip A. Chou , Kunwadee Sripanidkulchai
Proceedings of the 12th international workshop on Network and operating systems support for digital audio and video May 2002

In this paper, we discuss the problem of distributing streaming media content, both live and on-demand, to a large number of hosts in a scalable way. Our work is set in the context of the traditional client-server framework. Specifically, we consider the problem that arises when the server is overwhelmed by the volume of requests from its clients. As a solution, we propose *Cooperative Networking (CoopNet)*, where clients cooperate to distribute content, thereby alleviating the load on the ...

70 Analysis of TCP performance over mobile ad hoc networks 77%

Gavin Holland , Nitin Vaidya
Wireless Networks March 2002
Volume 8 Issue 2/3

Mobile ad hoc networks have attracted attention lately as a means of providing continuous network connectivity to mobile computing devices regardless of physical location. Recent research has focused primarily on the routing protocols needed in such an environment. In this paper, we investigate the effects that link breakage due to mobility has on TCP performance. Through simulation, we show that TCP throughput drops significantly when nodes move, due to TCP's inability to recognize the differen ...

71 An architecture for secure wide-area service discovery 77%

Todd D. Hodes , Steven E. Czerwinski , Ben Y. Zhao , Anthony D. Joseph , Randy H. Katz
Wireless Networks March 2002
Volume 8 Issue 2/3

The widespread deployment of inexpensive communications technology, computational resources in the networking infrastructure, and network-enabled end devices poses an interesting problem for end users: how to locate a particular

network service or device out of hundreds of thousands of accessible services and devices. This paper presents the architecture and implementation of a secure wide-area Service Discovery Service (SDS). Service providers use the SDS to advertise descriptions of available ...

72 Scalable routing protocol for ad hoc networks 77%

Seung-Chul M. Woo , Suresh Singh
Wireless Networks September 2001
Volume 7 Issue 5

In this paper we present a scalable routing protocol for ad hoc networks. The protocol is based on a geographic location management strategy that keeps the overhead of routing packets relatively small. Nodes are assigned home regions and all nodes within a home region know the approximate location of the registered nodes. As nodes travel, they send location update messages to their home regions and this information is used to route data packets. In this paper, we derive theoretical performance r ...

73 Fast and flexible application-level networking on exokernel systems 77%

Gregory R. Ganger , Dawson R. Engler , M. Frans Kaashoek , Héctor M. Briceño , Russell Hunt , Thomas Pinckney
ACM Transactions on Computer Systems (TOCS) February 2002
Volume 20 Issue 1

Application-level networking is a promising software organization for improving performance and functionality for important network services. The Xok/ExOS exokernel system includes application-level support for standard network services, while at the same time allowing application writers to specialize networking services. This paper describes how Xok/ExOS's kernel mechanisms and library operating system organization achieve this flexibility, and retrospectively shares our experiences an ...

74 Passive measurements: Characterizing large DNS traces using graphs 77%

Charles D. Cranor , Emden Gansner , Balachander Krishnamurthy , Oliver Spatscheck
Proceedings of the First ACM SIGCOMM Workshop on Internet Measurement Workshop November 2001

The increasing deployment of overlay networks that rely on DNS tricks has led to added interest in examining DNS traffic. In this paper we report on a characterization of DNS traffic gathered over a period of several weeks at Internet Gateway Routers (IGRs) in the AT&T Common Backbone. The characterization is carried out using several novel techniques to identify clients, local DNS servers, and authoritative DNS servers. Our techniques include passive and active measurements, graph-based analysi ...

75 Topology and routing: Topology modeling via cluster graphs 77%

Balachander Krishnamurthy , Jia Wang
Proceedings of the First ACM SIGCOMM Workshop on Internet Measurement Workshop November 2001

Several recent studies have focused on generating Internet topology graphs. Topology graphs have been used to predict growth patterns of prefixes and traffic flow as well as for designing better protocols. Internet topology graphs can be studied at eitherm inter-domain level or router level. For some applications, inter-domain level topology graph is too coarse, while router level topology graph may be too fine-grained. We introduce *cluster graphs* as a way of modeling Internet topology at ...

76 An adaptive FEC scheme for data traffic in wireless ATM networks 77%

Ian F. Akyildiz , Inwhee Joe , Henry Driver , Yung-Lung Ho

IEEE/ACM Transactions on Networking (TON) August 2001

Volume 9 Issue 4

In this paper, a new adaptive forward-error-correction scheme (AFEC) is introduced at the link layer for TCP/IP data traffic in wireless ATM networks. The fading and interference in wireless links cause high and variable error rates, as well as bursty errors. The purpose of the AFEC scheme is to provide a dynamic error-control mechanism by using the Reed-Solomon coding to protect the ATM cell payload, as well as the payload type indicator/cell loss priority fields in the ATM cell header. In orde ...

77 IDMaps: a global internet host distance estimation service 77%

Paul Francis , Sugih Jamin , Cheng Jin , Yixin Jin , Danny Raz , Yuval Shavitt , Lixia Zhang

IEEE/ACM Transactions on Networking (TON) October 2001

Volume 9 Issue 5

There is an increasing need to quickly and efficiently learn network distances, in terms of metrics such as latency or bandwidth, between Internet hosts. For example, Internet content providers often place data and server mirrors throughout the Internet to improve access latency for clients, and it is necessary to direct clients to the nearest mirrors based on some distance metric in order to realize the benefit of mirrors. We suggest a scalable Internet-wide architecture, called IDMaps, which m ...

78 The V distributed system 77%

David Cheriton

Communications of the ACM March 1988

Volume 31 Issue 3

The V distributed System was developed at Stanford University as part of a research project to explore issues in distributed systems. Aspects of the design suggest important directions for the design of future operating systems and communication systems.

79 Compact routing schemes 77%

Mikkel Thorup , Uri Zwick

Proceedings of the thirteenth annual ACM symposium on Parallel algorithms and architectures July 2001

We describe several compact routing schemes for general weighted undirected networks. Our schemes are simple and easy to implement. The routing tables stored at the nodes of the network are all very small. The headers attached to the routed messages, including the name of the destination, are extremely short. The routing decision at each node takes *constant* time. Yet, the *stretch* of these routing schemes, i.e., the worst ratio between the cost of the path on which a packet is ro ...

80 Towards junking the PBX: deploying IP telephony 77%

Wenyu Jiang , Jonathan Lennox , Henning Schulzrinne , Kundan Singh

Proceedings of the 11th international workshop on Network and operating systems support for digital audio and video January 2001

We describe the architecture and implementation of our Internet teleph ony test-bed intended to replace the departmental PBX (telephone switch). It interworks with the traditional telephone networks via a PSTN/IP gateway. It also serves as a corporate or campus infrastructure for existing and future services like web, email, video and streaming media. Initially intended for a few users, it will eventually replace the plain

old telephones from our offices, due to the cost benefit and new ...

Results 61 - 80 of 112 short listing

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Search Results

Search Results for: **[routing and table and cluster and number and group and lookup and data and packet and destination and address]**
Found **112** of **127,132 searched.**

Search within Results

41 Measurement: The impact of address allocation and routing on the structure and implementation of routing tables 77%
Harsha Narayan , Ramesh Govindan , George Varghese
Proceedings of the 2003 conference on Applications, technologies, architectures, and protocols for computer communications August 2003
The recent growth in the size of the routing table has led to an interest in quantitatively understanding both the causes (*eg* multihoming) as well as the effects (*eg* impact on router lookup implementations) of such routing table growth. In this paper, we describe a new model called **ARAM** that defines the structure of routing tables of any given size. Unlike simpler empirical models that work backwards from effects (*eg* current prefix length distributions), **ARAM** a ...

42 Network infrastructure for massively distributed games 77%
Daniel Bauer , Sean Rooney , Paolo Scotton
Proceedings of the 1st workshop on Network and system support for games April 2002
The popularity of hypertext documents led to the need for specific network infrastructure elements such as HTML caches, URL-based switches, web-server farms, and as a result created several new industries as companies rushed to fill that need. We contend that massive distributed games will have a similar impact on the Internet and will require similar dedicated support. This paper outlines some initial work on prototyping such support. Our approach is to combine highlevel game specific logic and ...

43 Dynamic task-based anycasting in mobile ad hoc networks 77%
Prithwish Basu , Wang Ke , Thomas D. C. Little
Mobile Networks and Applications October 2003

Volume 8 Issue 5

Mobile ad hoc networks (MANETs) have received significant attention in the recent past owing to the proliferation in the numbers of tetherless portable devices, and rapid growth in popularity of wireless networking. Most of the MANET research community has remained focused on developing lower layer mechanisms such as channel access and routing for making MANETs operational. However, little focus has been applied on higher layer issues, such as application modeling in dynamic MANET environments. ...

44 MERIT: a scalable approach for protocol assessment 77%

András Faragó , Violet R. Syrotiuk

Mobile Networks and Applications October 2003

Volume 8 Issue 5

MERIT is a framework that can be used to assess routing protocols in mobile ad hoc networks (manets). It uses the novel concept of a *shortest mobile path* (SMP) in a *mobile graph*, a generalization of the shortest path problem for mobile environments. As a measure for routing protocol assessment, we propose the mean ratio of the cost of the route used by a protocol to the cost of the optimal mobile path for the same network history. The cost reflects that the route used in a session ...

45 Developments in simulation and instrumentation: Large-scale network simulation techniques: examples of TCP and OSPF models 77%

Garrett R. Yaun , David Bauer , Harshad L. Bhutada , Christopher D. Carothers , Murat Yuksel , Shivkumar Kalyanaraman

ACM SIGCOMM Computer Communication Review July 2003

Volume 33 Issue 3

Simulation of large-scale networks remains to be a challenge, although various network simulators are in place. In this paper, we identify fundamental issues for large-scale networks simulation, and porpose new techniques that address them. First, we exploit optimistic parallel simulation techniques to enable fast execution on inexpensive hyper-threaded, multiprocessor systems. Second, we provide a compact, light-weight implementation framework that greatly reduces the amount of state required t ...

46 Improving network simulation: Considering processing cost in network simulations 77%

Ramaswamy Ramaswamy , Ning Weng , Tilman Wolf

Proceedings of the ACM SIGCOMM workshop on Models, methods and tools for reproducible network research August 2003

In many network simulations and models the cost of processing a packet is considered negligible or overly simplified. The functionality of routers is steadily increasing and complex processing of packet payloads is being implemented (deep packet classification, encryption, content transcoding). We show two examples where processing cost can contribute to a significant portion of the overall packet delay. To enable a more precise consideration of processing delay, we present a tool called NPEST (...

47 New techniques and approaches: FARA: reorganizing the addressing architecture 77%

David Clark , Robert Braden , Aaron Falk , Venkata Pingali

Proceedings of the ACM SIGCOMM workshop on Future directions in network architecture August 2003

sloppy This paper describes FARA, a new organization of, network architecture

concepts. FARA (Forwarding directive, Association, and Rendezvous Architecture) defines an abstract model with considerable generality and flexibility, based upon the decoupling of end-system names from network addresses. The paper explores the implications of FARA and the range of architecture instantiations that may be derived from FARA. As an illustration, the paper outlines a particular derived architecture, ...

48 New abstractions: Plutarch: an argument for network pluralism 77%

Jon Crowcroft , Steven Hand , Richard Mortier , Timothy Roscoe , Andrew Warfield

Proceedings of the ACM SIGCOMM workshop on Future directions in network architecture August 2003

It is widely accepted that the current Internet architecture is insufficient for the future: problems such as address space scarcity, mobility and non-universal connectivity are already with us, and stand to be exacerbated by the explosion of wireless, ad-hoc and sensor networks. Furthermore, it is far from clear that the ubiquitous use of standard transport and name resolution protocols will remain practicable or even desirable.In this paper we propose *Plutarch*, a new inter-networking ar ...

49 A multicast-based protocol for IP mobility support 77%

Ahmed Helmy

Proceedings of NGC 2000 on Networked group communication November 2000

Several architectures have been recently proposed to support IP mobility. Most studies, however, show that current protocols, in general, fall short from satisfying the performance requirements for audio applications. In this study, we propose a multicast-based protocol to reduce latency and packet loss during handoff and provide the base for IP mobility support. We use extensive simulation to evaluate our protocol's performance over a variety of real and generated topologies, and we compa ...

50 Embedded applications: AES and the cryptonite crypto processor 77%

Dino Oliva , Rainer Buchty , Nevin Heintze

Proceedings of the international conference on Compilers, architectures and synthesis for embedded systems October 2003

CRYPTONITE is a programmable processor tailored to the needs of crypto algorithms. The design of CRYPTONITE was based on an in-depth application analysis in which standard crypto algorithms (AES, DES, MD5, SHA-1, etc) were distilled down to their core functionality. We describe this methodology and use AES as a central example. Starting with a functional description of AES, we give a high level account of how to implement AES efficiently in hardware, and present several novel optimizations (whic ...

51 Data-centric storage in sensornets with GHT, a geographic hash table 77%

Sylvia Ratnasamy , Brad Karp , Scott Shenker , Deborah Estrin , Ramesh Govindan , Li Yin , Fang Yu

Mobile Networks and Applications August 2003

Volume 8 Issue 4

Making effective use of the vast amounts of data gathered by large-scale sensor networks (sensornets) will require scalable, self-organizing, and energy-efficient data dissemination algorithms. For sensornets, where the content of the data is more important than the identity of the node that gathers them, researchers have found it useful to move away from the Internet's point-to-point communication abstraction and instead adopt abstractions that are more data-centric. This approach entails

na ...

52 PASM: a reconfigurable parallel system for image processing 77%
Howard Jay Siegel , Thomas Schwederski , Nathaniel J. Davis , James T. Kuehn
ACM SIGARCH Computer Architecture News September 1984
Volume 12 Issue 4
PASM is a multifunction partitionable SIMD/MIMD system being designed at Purdue for parallel image understanding. It is to be a large-scale, dynamically reconfigurable multimicroprocessor system, which will incorporate over 1,000 complex processing elements. Parallel algorithm studies and simulations have been used to analyze application tasks in order to guide design decisions. A prototype of PASM is under construction (funded by an equipment grant from IBM), including 30 Motorola MC68010 proce ...

53 Video adaptation: RITA: receiver initiated *just-in-time* tree adaptation for rich media distribution 77%
Zhichen Xu , Chunqiang Tang , Sujata Banerjee , Sung-Ju Lee
Proceedings of the 13th international workshop on Network and operating systems support for digital audio and video June 2003
Application-level multicast networks overlaid on unicast IP networks are increasingly gaining in importance. While there have been several proposals for overlay multicast networks, very few of them focus on the stringent requirements of real-time applications such as streaming media. We propose RITA (Receiver Initiated Timely Adaptation) framework for an efficient overlay multicast infrastructure. RITA is based on a combination of landmark clustering and RTT measurements, and is particularly sui ...

54 Industry track papers: Learning nonstationary models of normal network traffic for detecting novel attacks 77%
Matthew V. Mahoney , Philip K. Chan
Proceedings of the eighth ACM SIGKDD international conference on Knowledge discovery and data mining July 2002
Traditional intrusion detection systems (IDS) detect attacks by comparing current behavior to signatures of known attacks. One main drawback is the inability of detecting new attacks which do not have known signatures. In this paper we propose a learning algorithm that constructs models of normal behavior from attack-free network traffic. Behavior that deviates from the learned normal model signals possible novel attacks. Our IDS is unique in two respects. First, it is nonstationary, modeling pr ...

55 Astrolabe: A robust and scalable technology for distributed system monitoring, management, and data mining 77%
Robbert Van Renesse , Kenneth P. Birman , Werner Vogels
ACM Transactions on Computer Systems (TOCS) May 2003
Volume 21 Issue 2
Scalable management and self-organizational capabilities are emerging as central requirements for a generation of large-scale, highly dynamic, distributed applications. We have developed an entirely new distributed information management system called Astrolabe. Astrolabe collects large-scale system state, permitting rapid updates and providing on-the-fly attribute aggregation. This latter capability permits an application to locate a resource, and also offers a scalable way to track sys ...

56 Notable computer networks 77%

John S. Quarterman , Josiah C. Hoskins
Communications of the ACM October 1986
Volume 29 Issue 10

Computer networks are becoming more numerous and more diverse. Collectively, they constitute a worldwide metanetwork.

57 Span: an energy-efficient coordination algorithm for topology maintenance in ad hoc wireless networks 77%

Benjie Chen , Kyle Jamieson , Hari Balakrishnan , Robert Morris
Wireless Networks September 2002
Volume 8 Issue 5

This paper presents *Span,* a power saving technique for multi-hop ad hoc wireless networks that reduces energy consumption without significantly diminishing the capacity or connectivity of the network. Span builds on the observation that when a region of a sharedchannel wireless network has a sufficient density of nodes, only a small number of them need be on at any time to forward traffic for active connections. Span is a distributed, randomized algorithm where nodes make local decisions ...

58 Algorithms for provisioning virtual private networks in the hose model 77%

Amit Kumar , Rajeev Rastogi , Avi Silberschatz , Bulent Yener
IEEE/ACM Transactions on Networking (TON) August 2002
Volume 10 Issue 4

Virtual Private Networks (VPNs) provide customers with predictable and secure network connections over a shared network. The recently proposed *hose* model for VPNs allows for greater flexibility since it permits traffic to and from a hose endpoint to be arbitrarily distributed to other endpoints. In this paper, we develop novel algorithms for provisioning VPNs in the hose model. We connect VPN endpoints using a *tree* structure and our algorithms attempt to optimize the total b ...

59 Single-packet IP traceback 77%

Alex C. Snoeren , Craig Partridge , Luis A. Sanchez , Christine E. Jones , Fabrice Tchakountio , Beverly Schwartz , Stephen T. Kent , W. Timothy Strayer
IEEE/ACM Transactions on Networking (TON) December 2002
Volume 10 Issue 6

The design of the IP protocol makes it difficult to reliably identify the originator of an IP packet. Even in the absence of any deliberate attempt to disguise a packet's origin, widespread packet forwarding techniques such as NAT and encapsulation may obscure the packet's true source. Techniques have been developed to determine the source of large packet flows, but, to date, no system has been presented to track individual packets in an efficient, scalable fashion. We present a hash-based techn ...

60 Evolving RPC for active storage 77%

Muthian Sivathanu , Andrea C. Arpaci-Dusseau , Remzi H. Arpaci-Dusseau
Tenth international conference on architectural support for programming languages and operating systems on Proceedings of the 10th international conference on architectural support for programming languages and operating systems (ASPLOS-X) October 2002
Volume 37 , 36 , 30 Issue 10 , 5 , 5

We introduce Scriptable RPC (SRPC), an RPC-based framework that enables distributed system services to take advantage of active components. Technology trends point to a world where each component in a system (whether disk, network

interface, or memory) has substantial computational capabilities; however, traditional methods of building distributed services are not designed to take advantage of these new architectures, mandating wholesale change of the software base to exploit more powerful hardw ...

Results 41 - 60 of 112 short listing

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Search Results

Search Results for: **[routing and table and cluster and number and group and lookup and data and packet and destination and address]**
Found **112** of **127,132 searched.**

Search within Results

Sort by: Title Publication Publication Date **Score** Binder

Results 21 - 40 of 112 short listing

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21 Resilient overlay networks 80%

David Andersen , Hari Balakrishnan , Frans Kaashoek , Robert Morris
ACM SIGOPS Operating Systems Review , Proceedings of the eighteenth ACM symposium on Operating systems principles October 2001
Volume 35 Issue 5

A Resilient Overlay Network (RON) is an architecture that allows distributed Internet applications to detect and recover from path outages and periods of degraded performance within several seconds, improving over today's wide-area routing protocols that take at least several minutes to recover. A RON is an application-layer overlay on top of the existing Internet routing substrate. The RON nodes monitor the functioning and quality of the Internet paths among themselves, and use this information ...

22 QoS provisioning in clusters: an investigation of Router and NIC design 80%

Ki Hwan Yum , Eun Jung Kim , Chita R. Das
ACM SIGARCH Computer Architecture News , Proceedings of the 28th annual international symposium on Computer architecture May 2001
Volume 29 Issue 2

Design of high performance cluster networks (routers) with Quality-of-Service (QoS) guarantees is becoming increasingly important to support a variety of multimedia applications, many of which have real-time constraints. Most commercial routers, which are based on the wormhole-switching paradigm, can deliver high performance, but lack QoS provisioning. In this paper, we present a pipelined wormhole router architecture that can provide high and predictable performance for integrated traffic ...

23 Timestamp snooping: an approach for extending SMPs 80%

Milo M. K. Martin , Daniel J. Sorin , Anatassia Ailamaki , Alaa R. Alameldeen , Ross M. Dickson , Carl J. Mauer , Kevin E. Moore , Manoj Plakal , Mark D. Hill , David A. Wood
Proceedings of the ninth international conference on Architectural support for programming languages and operating systems November 2000
Volume 28 , 34 Issue 5 , 5

Symmetric muultiprocessor (SMP) servers provide superior performance for the commercial workloads that dominate the Internet. Our simulation results show that over one-third of cache misses by these applications result in cache-to-cache transfers, where the data is found in another processor's cache rather than in memory. SMPs are optimized for this case by using snooping protocols that broadcast address transactions to all processors. Conversely, directory-based shared-memory systems must indir ...

24 Performance modeling for fast IP lookups 80%

Girija Narlikar , Francis Zane
ACM SIGMETRICS Performance Evaluation Review , Proceedings of the 2001 ACM SIGMETRICS international conference on Measurement and modeling of computer systems June 2001
Volume 29 Issue 1

In this paper, we examine algorithms and data structures for the longest prefix match operation required for routing IP packets. Previous work, aimed at hardware implementations, has focused on quantifying worst case lookup time and memory usage. With the advent of fast programmable platforms, whether network processor or PC-based, metrics which look instead at average case behavior and memory cache performance become more important. To address this, we consider a family of data structures captu ...

25 Timestamp snooping: an approach for extending SMPs 80%

Milo M. K. Martin , Daniel J. Sorin , Anastassia Ailamaki , Alaa R. Alameldeen , Ross M. Dickson , Carl J. Mauer , Kevin E. Moore , Manoj Plakal , Mark D. Hill , David H. Wood
ACM SIGPLAN Notices November 2000
Volume 35 Issue 11

Symmetric multiprocessor (SMP) servers provide superior performance for the commercial workloads that dominate the Internet. Our simulation results show that over one-third of cache misses by these applications result in cache-to-cache transfers, where the data is found in another processor's cache rather than in memory. SMPs are optimized for this case by using snooping protocols that broadcast address transactions to all processors. Conversely, directory-based shared-memory systems must indire ...

26 An architecture for a secure service discovery service 80%

Steven E. Czerwinski , Ben Y. Zhao , Todd D. Hodes , Anthony D. Joseph , Randy H. Katz
Proceedings of the 5th annual ACM/IEEE international conference on Mobile computing and networking August 1999

27 Performance study of access control in wireless LANs—IEEE 802.11 DFWMAC and ETSI RES 10 Hiperlan 80%

Jost Weinmiller , Morten Schläger , Andreas Festag , Adam Wolisz
Mobile Networks and Applications June 1997
Volume 2 Issue 1

Currently two projects are on their way to standardize physical layer and medium access control for wireless LANs—IEEE 802.11 and ETSI RES 10 Hiperlan. This paper

presents an introduction to both projects focussing on the applied access schemes. Further we will present our simulation results, analyzing the performance of both access protocols depending on the number of stations and on the packet size, evaluating them regarding their capability to support QoS parameters, regarding the ...

28 Hierarchical distance-vector multicast routing for the MBone 80%

Ajit S. Thyagarajan , Stephen E. Deering

ACM SIGCOMM Computer Communication Review , Proceedings of the conference on Applications, technologies, architectures, and protocols for computer communication October 1995

Volume 25 Issue 4

The exponential growth of the Multicast Back-bone (MBone) has resulted in increased routing overhead and processing costs. In this paper we propose a two-level hierarchical routing model as a solution to this problem. This approach involves partitioning the MBone into non-overlapping regions using DVMRP as the inter-region routing protocol; intra-region routing may be accomplished by any of a number of existing multicast protocols. Our design is flexible enough to accommodate additional levels o ...

29 IP-based protocols for mobile internetworking 80%

John Ioannidis , Dan Duchamp , Gerald Q. Maguire

ACM SIGCOMM Computer Communication Review , Proceedings of the conference on Communications architecture & protocols August 1991

Volume 21 Issue 4

30 Internet routing over large public data networks using shortcuts 80%

Paul F. Tsuchiya

ACM SIGCOMM Computer Communication Review , Conference proceedings on Communications architectures & protocols October 1992

Volume 22 Issue 4

With the emergence of large switched public data networks that are well-suited to connectionless internets, for instance SMDS, it is possible that larger and larger numbers of internet users will get their connectivity from large public data networks whose native protocols are not the same as the user's internet protocol. This results in a routing problem that has not yet been addressed. That is, large numbers of routers (potentially tens of thousands) must be able to find direct routes to ...

31 A client-aware dispatching algorithm for web clusters providing multiple services 77%

Emiliano Casalicchio , Michele Colajanni

Proceedings of the tenth international conference on World Wide Web April 2001

32 Protecting web servers from distributed denial of service attacks 77%

Frank Kargl , Joern Maier , Michael Weber

Proceedings of the tenth international conference on World Wide Web April 2001

33 Stateful distributed interposition 77%

John Reumann , Kang G. Shin

ACM Transactions on Computer Systems (TOCS) February 2004

Volume 22 Issue 1

Interposition-based system enhancements for multitiered servers are difficult to build because important system context is typically lost at application and machine boundaries. For example, resource quotas and user identities do not propagate easily between cooperating services that execute on different hosts or that communicate with each other via intermediary services. Application-transparent system enhancement is difficult to achieve when such context information is obscured by complex servic ...

34 A query scope agent for flood search routing protocols 77%
John Sucec , Ivan Marsic
Wireless Networks November 2003
Volume 9 Issue 6

Flood-search on-demand routing has received considerable interest for its application to mobile ad hoc networks. To alleviate the effects of flooding the network with control packets to discover a route, the concept of an expanding ring search (ERS) has been proposed elsewhere for reducing the packet transmission overhead of the route discovery process. Essentially, ERS consists of incrementally increasing the allowable hop radius of the flood search until a route to the target node is returned. ...

35 Internet indirection infrastructure 77%
Ion Stoica , Daniel Adkins , Shelley Zhuang , Scott Shenker , Sonesh Surana
ACM SIGCOMM Computer Communication Review , Proceedings of the 2002 conference on Applications, technologies, architectures, and protocols for computer communications August 2002
Volume 31 Issue 4

Attempts to generalize the Internet's point-to-point communication abstraction to provide services like multicast, anycast, and mobility have faced challenging technical problems and deployment barriers. To ease the deployment of such services, this paper proposes an overlay-based Internet Indirection Infrastructure (I3) that offers a rendezvous-based communication abstraction. Instead of explicitly sending a packet to a destination, each packet is associated with an identifier; this identifier ...

36 Scalable packet classification 77%
Florin Baboescu , George Varghese
ACM SIGCOMM Computer Communication Review , Proceedings of the 2001 conference on Applications, technologies, architectures, and protocols for computer communications August 2001
Volume 31 Issue 4

37 A scalable content-addressable network 77%
Sylvia Ratnasamy , Paul Francis , Mark Handley , Richard Karp , Scott Schenker
ACM SIGCOMM Computer Communication Review , Proceedings of the 2001 conference on Applications, technologies, architectures, and protocols for computer communications August 2001
Volume 31 Issue 4

38 Technical papers: 4+4: an architecture for evolving the Internet address space back toward transparency 77%
Zoltán Turányi , András Valkó , Andrew T. Campbell
ACM SIGCOMM Computer Communication Review October 2003
Volume 33 Issue 5

We propose 4+4, a simple address extension architecture for Internet that provides an evolutionary approach to extending the existing IPv4 address space in comparison to more complex and disruptive approaches best exemplified by IPv6 deployment. The 4+4 architecture leverages the existence of Network Address Translators (NATs) and private address realms, and importantly, enables the return to end-to-end address transparency as the incremental deployment of 4+4 progresses. During the transition t ...

39 Invited workshop on adaptive systems for ubiquitous computing: Dynamic configuration management for MANETs: an overview 77%

John Paul O'Grady , Susan Rea , Sinead Cummins , Dirk Pesch , Rajiv Mathur
Proceedings of the 1st international symposium on Information and communication technologies September 2003

With the proliferation of wireless portable ubiquitous computer networking the area of mobile ad hoc networks (MANETs) is a focus of intense research. This paper discusses some of the issues (IP address assignment, routing, service provision) involved in effectively managing an ad hoc network.

40 Overlays: Forwarding in a content-based network 77%

Antonio Carzaniga , Alexander L. Wolf
Proceedings of the 2003 conference on Applications, technologies, architectures, and protocols for computer communications August 2003

This paper presents an algorithm for content-based forwarding, an essential function in content-based networking. Unlike in traditional address-based unicast or multicast networks, where messages are given explicit destination addresses, the movement of messages through a content-based network is driven by predicates applied to the content of the messages. Forwarding in such a network amounts to evaluating the predicates stored in a router's forwarding table in order to decide to which neighbor ...